

REMARKS/ARGUMENTS

Claims 31 - 57 are pending in the application.

Claims 31 and 38 have been amended. New dependent claims 54 - 57 have been added.

In the Office Action, restriction under 35 U.S.C. 121 and 372 is required and Applicants are requested to elect a single invention to which the claims must be restricted in accordance with 37 CFR 1.499. Also, in the Office Action, it is alleged that the present application contains a group of ten (10) inventions respectively denominated Group I - X and, further, that the inventions listed as Groups I - X are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In the Office Action, it is alleged that the inventions listed as Groups I - X do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the reasons that the subject matter common to all inventions is a heterogeneous mixture comprising a polymeric matrix and a liquid material that functions as an electrode, electrolyte, or electronic/ionic intermediate conductor. Moreover, it is alleged in the Office Action that Klein et al (U.S. Patent 4,225,657) teaches, among other features, a polymeric matrix containing aqueous KOH as an electrolyte material (see columns 5 and 6) and that, accordingly, the inventions listed as Groups I - X lack a common special technical feature which makes a contribution over the prior art (37 CFR 1.475(a)).

Applicants respectfully elect the claims drawn to the invention listed as Group II - specifically, claim 38 as currently amended, original claim 46, and new claims 55

- 57 - for consideration on the merits.

Also, Applicants respectfully traverse, in view of the following comments and the amendments of claims 31 and 38, the objection in the Office Action that the inventions listed as Groups I - X do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features.

Applicants submit that the inventions listed as Groups I - X relate to a single general inventive concept under PCT Rule 13.1 for the reason that these inventions listed as Groups I - X include a common special technical feature which makes a contribution over the prior art (37 CFR 1.475(a)). Specifically, Applicants submit that the inventions listed as Groups I - X include the common special technical feature of a powdery solid that is essentially inert relative to the electrochemically activatable liquid and that this common special technical feature makes a contribution over the prior art for the reason that neither Klein et al (U.S.Patent 4,225,657) nor any other prior art teaches the subject matter common to all of the inventions listed as Groups I - X.

Taking, for example, particular regard of Klein et al (U.S.Patent 4,225,657), this reference teaches a separator comprised of an inert porous support to which there is applied a layer comprising a polymeric binder and a compound selected from the group consisting of carbonates and hydroxyl-carbonates of nickel, cerium, lanthanum, and mixtures thereof. These substances are termed "precursor" substances (see column 2, lines 55 - 57 of Klein et al (U.S.Patent 4,225,657)). As set forth in column 3, lines 1 - 6 of Klein et al (U.S.Patent 4,225,657), during processing in the electrolyte [emphasis added herein], the precursor undergoes a gel-forming reaction resulting in a locking-in

effect of the gel-like product binder mixture giving a product of excellent physical properties that is practically devoid of pinholes and that can be folded without cracking. In contrast, as noted above, with respect to each of the inventions listed as Groups I - X of the present application, each invention comprises a powdery solid that is essentially inert relative to the electrochemically activatable liquid.

The absence of any teaching in Klein et al (U.S.Patent 4,225,657) of the above-noted common special technical feature of a powdery solid that is essentially inert relative to the electrochemically activatable liquid can be understood in connection with the different purposes of the invention disclosed in Klein et al (U.S.Patent 4,225,657) and the present invention. The Klein et al (U.S.Patent 4,225,657) reference discloses a separator for use in alkaline secondary zinc cells where permeation of hydroxyl ions is desired and where permeation of zincate ions is to be inhibited so that no dendrites may grow. To this end, Klein et al (U.S.Patent 4,225,657) discloses providing a paste made from a matrix-like PTFE and the respective salt which is then applied to a suitable sheet-formed support and subjected to curing. During processing in the electrolyte, the precursor undergoes a gel-forming reaction resulting in a locking-in effect of the gel-like product binder mixture giving a product of excellent physical properties that is practically devoid of pinholes. Thus, no dendrites can grow through the separator.

In contrast, the present invention is directed to films or tapes produced from a paste-like mass, wherein the layers produced from the paste have very good conductive properties and high flexibility. To ensure that such properties obtain, there is added to the paste-like mass of the present invention, as recited, for example, in claims 31 and 38 as currently amended, a powdery solid that is essentially inert relative to the

electrochemically activatable liquid and that, among other benefits, improves the properties of the matrix in regard to its support or the behavior of the tape that is drawn therefrom. Exemplary powdery solids that provide such benefits, and that can even withstand aggressive chemicals, are SiO₂, Si₃N₄, Al₂O₃, AlN, MgO, and mixtures thereof.

Accordingly, it is submitted that the inventions listed as Groups I - X relate to a single general inventive concept under PCT Rule 13.1 for the reason that these inventions include a common special technical feature which makes a contribution over the prior art (37 CFR 1.475(a)). Applicants submit that claims 38, 46 and 55 - 57 drawn to the invention listed as Group II are now in condition for allowance and early action toward that end is respectfully requested as well as favorable consideration of the non-elected claims. However, should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call from him in order to resolve any outstanding issues and expedite placement of the application into condition for allowance.

Respectfully Submitted,



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